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PATENT  
File No. HER07 P-106

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE  
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

Confirmation No. : 5284  
Art Unit : 1771  
Examiner : Alexis A. Wachtel  
Applicants : Birgit Boge, Jorgen Trappmann, and Wolfgang Holstein  
Serial No. : 09/647,209  
Filed : September 27, 2000  
For : **MARKINGS ON MINERAL WOOL PRODUCTS**  
Atty Docket No. : HER07 P-106

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Commissioner for Patents  
P.O. Box 1450  
Alexandria, VA 22313-1450

Attention: Board of Patent Appeals and Interferences

APPELLANT'S BRIEF

**I. Real Party In Interest**

The real party in interest is the same as the assignee of the present application: Saint-Gobain Isover of Courbevoie France.

**II. Related Appeals And Interferences**

No other appeals or interferences known to appellant or its legal representative will directly affect, be directly affected by, or have a bearing on the Board's decision in this appeal.

**III. Status Of Claims**

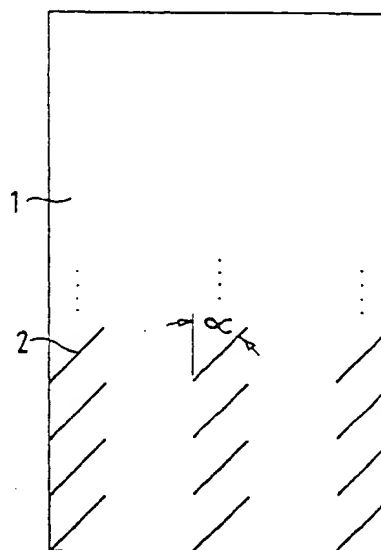
Claims 1, 2 and 8-35 are pending in this application. All of these claims have been rejected in the Office Action of March 25, 2003. Claims 1, 2 and 8-25 were also rejected in an Office Action of April 25, 2002, and in an Office Action of December 3, 2002. The rejection of claims 1, 2 and 8-35 is appealed herein.

**IV. Status Of Amendments**

All claim amendments are believed to have been entered in this case. The attached appendix reprints all of the pending claims in their currently amended form.

**V. Summary Of Invention**

This invention generally relates to insulation, such as mineral wool insulation that is manufactured in sheets (page 1, lines 1-3). The invention more specifically relates to insulation sheets that include markings that facilitate cutting the insulation sheets to desired shapes (page 2, lines 18-22). For example, FIG.1, which is reproduced herein, illustrates an insulation material sheet 1 having a plurality of stroke lines or markings 2 which are arranged at an angle  $\alpha$  to the longitudinal direction of the insulation material sheet and in regular intervals with respect to each other (page 2, lines 18-22). In this embodiment, the upper and lower ends of the markings are aligned such that if they are mutually connected together by an imaginary straight line that runs perpendicularly to the longitudinal extent of the insulation material sheet, the imaginary line provides a convenient guide for cutting the sheet along this imaginary line (page 3, lines 1-5). FIGS. 2-11 illustrate different embodiments of the present invention in which different types of markings are printed on the insulation material sheet. These markings allow different lines to be easily drawn on the insulation material sheet, if desired, to facilitate cutting the sheets at different locations, and in different manners (see pages 3-6).



**FIG.1**

**VI. Issues**

- A. Whether claims 1, 2, and 8-35 are allegedly obvious under 35 U.S.C. §103(a) in light of U.S. Patent No. 4,866,905 issued to Bihiy.

- B. Whether claims 1, 2, and 8-35 are allegedly obvious under 35 U.S.C. §103(a) in light of German Publication DE 3713108A.
- C. Whether claims 1, 2, and 8-35 are allegedly anticipated under 35 U.S.C. §102(b) by European Patent Publication EP 795424 A1.

**VII. Grouping of Claims**

For purposes of this appeal, claims 1, 8, 10, 12, 18, 20, 22, and 24 shall stand or fall together. Claims 14 and 16 shall stand or fall together. Claims 2, 9, 11, 13, 19, 21, 23, and 25 shall stand or fall together. Claims 15 and 17 shall stand or fall together. Claims 26, 29, and 32-35 shall stand or fall together. Claims 27-28 and 30-31 shall also stand or fall together. It will be understood that these groupings of claims are being chosen for the purposes of expediting this appeal, but should in no way be construed as an admission that Applicants do not consider one or more of the individual claims in these groups to be separately patentable from any of the other claims in the same group.

**VIII. Argument**

Claims 1, 2, and 8-35 were rejected on three separate grounds. Specifically, they were all rejected in light of U.S. Patent No. 4,866, 905 issued to Bihi, in light of German Publication DE 3713108, and in light of European Patent Publication EP 0795424 A1. Each of these three grounds of rejection are addressed separately in the subsections below.

**A. Claims 1, 2, and 8-35 are Not Obvious in Light of U.S. Patent No. 4,866,905 Issued to Bihi**

As set forth in section VII herein, there are six different groups of claims that stand or fall together. The reasons why the Bihi patent does not render obvious each of these six separate groupings of claims is addressed below in the following six subsections.

**1. Claims 1, 8, 10, 12, 18, 20, 22, and 24 are Not Obvious in Light of the Bihi Patent**

Independent claim 1 of the pending application is directed to a rollable, mineral wool, insulation material for the insulation of roofs. The insulation material sheet has markings that

are distributed over a length of the insulation material sheet and which facilitate cutting the sheet into desired shapes. Claim 1 further specifies that the markings are defined by at least one arrangement selected from the group consisting of:

1. at least some of the markings being defined with an orientation that is non-perpendicular to the longitudinal axis of the insulation sheet, or
2. the markings are defined by plane formations.

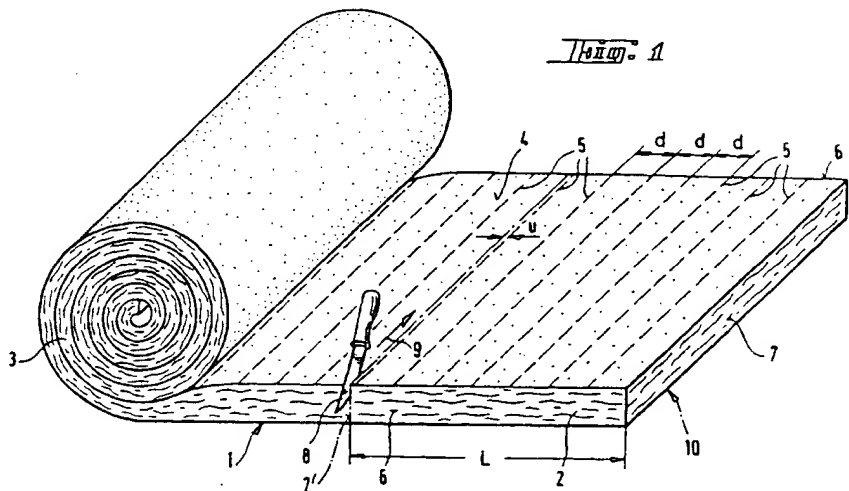
Insulation sheets having either of these types of markings are not disclosed in the Bihiy patent, nor are they suggested thereby.

The Bihiy patent is directed to a method of installing a mineral fiber material and a method of producing the mineral fiber material. As can be seen in FIG. 1 of the Bihiy patent, which is reproduced herein for ease of reference, the insulation sheet includes a plurality of marking lines 5 printed on it.

These marking lines 5, however, are oriented perpendicular to the longitudinal extent of the mineral fiber strip 1. Thus, the Bihiy patent fails to teach or disclose markings that meet either of the two limitations discussed above. More specifically, the Bihiy

patent fails to disclose markings that either are plane formations, or are markings oriented in a non-perpendicular manner to the longitudinal axis of the sheeted material. Because these limitations are not disclosed in the prior art, the Examiner has failed to create a prima facie case of obviousness.

In order to establish a prima facie case of obviousness, three requirements must be met. First, there must be some motivation or suggestion either in the references themselves, or in the knowledge generally available to one of ordinary skill in the art to modify the references, or to combine reference teachings. Second, there must be a reasonable expectation of success. Third, the prior art references or combinations must teach or suggest



all of the claimed limitations. M.P.E.P. §2143. Here, the Bihi patent does not teach or suggest all of the limitations of independent claim 1, and a prima facie case of obviousness has not been made.

As noted above, the Bihi patent only discloses markings 5 that are oriented perpendicularly to the longitudinal extent of the mineral fiber strip 1. It does not disclose or suggest markings that meet either of the definitions set forth in independent claim 1. Nor is there any suggestion in Bihi for modifying the markings 1. Still further, there is no suggestion in the general knowledge of ordinary skill in this art to make changes to the markings in Bihi that would bring them within the scope of claim 1. A prima facie case of obviousness has therefore not been made.

The Examiner appears to have dismissed the specific limitations in claim 1 regarding how the markings are defined. The Examiner specifically states at page two of the Office Action that:

The limitations relating to the specifically claimed graphically marked designs on the surface of the claimed mineral wool sheet are given no patentable weight as they do not structurally effect the final product.

Applicants submit that this position is legally incorrect. In essence, it amounts to nothing more than a statement that because the Bihi patent discloses a sheet of insulation having specific markings on it, this renders obvious any and all insulation sheets that have any kind of markings on them whatsoever. In fact, this is exactly what the Examiner contends on pages two and three of the Office Action where it is stated:

Since Bihi et al. as set forth above teaches to provide functional graphics on the mineral fiber material, it would have been a matter of obvious design choice to have provided any specific functional design motivated by the desire to provide a user improved instructions or improved product aesthetics.

The Examiner, however, provides no legal authority for this position. Such a legally unsupported declaration cannot be used as a basis for justifying an obviousness rejection.

In fact, the case of *In re Miller*, 164 U.S.P.Q. 46 (C.C.P.A. 1969) establishes that the Examiner's assertion is legally incorrect. In the *In re Miller* case, the Court of Customs and Patent Appeals was confronted with a patent application dealing with a measuring cup that was used for measuring out volumes of liquids used for baking goods. The inventive

measuring cup specifically included marked indicia for measuring different fractions of a recipe. For example, markings were included on the cup for measuring one half portions of a given recipe. For these markings, the line corresponding to, for example, one cup actually corresponded to a volume of one half cup. The user of the measuring cup therefore used the one half recipe indicia in a manner that corresponded to the full volumes recited in the recipe. The end result would be only one half of the amount stated in the recipe. This allowed cooks to more easily compute fractional amounts of a recipe without having to do the difficult math of measuring, say, one third of two thirds of a cup. The novelty of the measuring cup thus lay in the specific markings that were provided on the measuring cup. The Court of Customs and Patent Appeals overturned the Patent Office's Board of Appeals decision that had rejected the claims of the patent application. The patent application was thus approved by the Court of Customs and Patent Appeals.

If one were to try to adopt the reasoning of the Examiner in the present case and apply it to the situation in the *In re Miller*, one clearly sees the incorrectness of the Examiner's position. Measuring cups with markings had existed prior to the invention of the measuring cup of *In re Miller*. Therefore, it was known to make measuring cups with printed indicia thereon. By the present Examiner's reasoning, this prior art would have prevented the applicant in the *In re Miller* case from ever obtaining a patent. By the reasoning of the present Examiner, no patentable weight would have been given to the novel indicia that were placed on the measuring cup. Instead, by the reasoning of the present Examiner, the inventor in the *In re Miller* case should have had his patent denied because, since the prior art taught to provide functional graphics on measuring cups, it would have been a matter of obvious design choice to have provided any specific functional design of indicia on the measuring cup. Stated alternatively, once it was known to put markings on a measuring cup, it would not have been possible to obtain a patent on different markings because no patentable weight could have been given to the individual character of the markings because they were all obvious in light of the prior art markings. This reasoning, however, is contrary to the holding of the Court in *In re Miller*, which specifically approved of the patentability of the novel measuring cup.

In the *In re Miller* case, the U.S. Court of Customs and Patent Appeals specifically stated that there was "a new and unobvious functional relationship between a measuring

receptacle, volumetric indicia thereon indicating volume in a certain ratio to actual volume, and a legend indicating the ration.” Of these three entities, the volumetric indicia and the legend are both printed matter. The measuring receptacle is structural. This structural portion, however, was prior art at the time of the invention of the *In re Miller* application. Moreover, measuring receptacles with indicia thereon were also prior art at the time of the *In re Miller* case. Thus, the U.S. Court of Customs and Patent Appeals could only have been according patentable weight *to the specific markings on the measuring cup* and their differences from prior art measuring cups that had different markings. This means that consideration must be given to differences in the arrangement of markings where they are part of a functional device, such as in the *In re Miller* case and in the present application. The Examiner of the present application, however, has not done this, but has instead concluded in a broad brush fashion that the prior art perpendicular markings of Bihi render obvious any and all types of markings on insulation material. The *In re Miller* case demonstrates that this position is legally incorrect.

The non-perpendicular markings of the insulation sheet of the present invention facilitate cutting the insulation sheet in non-perpendicular manners. This is not disclosed or suggested by the Bihi patent. The markings of the Bihi patent only facilitate making perpendicular cuts along the sheet of insulation. There is no disclosure or suggestion in the Bihi patent for making any other kind of markings on the insulation. Because of this, the prima facie case of obviousness has not been established, and the rejection of claims 1, 8, 10, 12, 18, 20, 22, and 24 in light of the Bihi patent should be withdrawn.

**2. Claims 14 and 16 are Not Obvious in Light of the Bihi Patent**

Claims 14 and 16 are both dependent upon independent claim 1, either directly or indirectly. Claims 14 and 16 are therefore not obvious in light of the Bihi patent for the same reasons discussed above in subsection 1. In addition to these reasons, claims 14 and 16 are not obvious because they recite additional claim limitations that are not disclosed or suggested by the Bihi patent. Claims 14 and 16 both specify that the markings on the insulation are formed by a geometrical pattern selected from the group consisting of trapezoids, squares, rectangles, triangles, and parallelograms. As has been noted above, the

Bihi patent only discloses markings 5 that are straight line segments that extend across the insulation perpendicularly to the longitudinal extent of the insulation sheet. There is no disclosure or suggestion in the Bihi patent for any kind of markings that include the polygons recited in claims 14 and 16. Claims 14 and 16 thus are not obvious in light of the Bihi patent for this additional reason.

**3. Claims 2, 9, 11, 13, 19, 21, 23, and 25 are Not Obvious in Light of the Bihi Patent**

Independent claim 2, as well as its dependent claims 9, 11, 13, 19, 21, 23, and 25, are not obvious in light of the Bihi patent because the Bihi patent does not disclose markings on an insulation sheet as defined in independent claim 2. Independent claim 2 recites that the markings are formed by crosses. No prima facie case of obviousness has been established for these claims because no prior art has been cited that discloses such crosses on an insulation sheet, or which suggests applying such crosses to an insulation sheet. The Examiner, however, has given no patentable weight to the specific form of the markings recited in claim 2. Instead, the Examiner has made the same assertion discussed above with respect to independent claim 1 that all markings on an insulation sheet are allegedly obvious in light of the Bihi patent. For the same reasons discussed above in subsection 1, this position is incorrect. Patentable weight must be given to the limitations in claim 2 that recite a specific definition for the markings. Stated alternatively, patentable weight must be given to the limitations in claim 2 that recite that the markings are crosses. Such crosses are not disclosed or suggested by any of the prior art. The obviousness rejection in light of the Bihi patent of claims 2, 9, 11, 13, 19, 21, 23, and 25 therefore must be withdrawn.

**4. Claims 15 and 17 are Not Obvious in Light of the Bihi Patent**

Claims 15 and 17 are both dependent upon independent claim 2, either directly or indirectly. Thus, claims 15 and 17 are not obvious in light of the Bihi patent for the same reasons discussed above in subsection 3. In addition to those reasons, claims 15 and 17 are not obvious because they recite additional subject matter that is not disclosed or suggested by the Bihi patent. Claims 15 and 17 recited that the markings on the insulation sheet are selected from the group consisting of trapezoids, squares, rectangles, triangles, and



parallelograms. No such markings are disclosed or suggested by the Bihi patent, or any general knowledge of one of ordinary skill in the art. For this additional reason, the rejection of claims 15 and 17 should be withdrawn.

**5. Claims 26, 29, and 32-35 are Not Obvious in Light of the Bihi Patent**

Independent claim 6 recites a mineral wool, insulation material sheet that includes markings distributed over it for making oblique cuts with respect to the longitudinal axis of the material sheet. Claim 26 further recites that the markings are defined according to at least one of three separate definitions. First, the markings may be defined by at least one oblique line segment extending in an oblique direction with respect to the longitudinal axis of the material sheet. Second, the markings may be defined by at least one line segment that is parallel to the longitudinal axis of the sheet wherein the parallel line segments are arranged in rows and define end points such that at least three end points from parallel line segments in adjacent rows are collinear so they can be connected together to define a line having an oblique angle with respect to the longitudinal axis of the insulation material. Third, the markings may be defined by dots that are positioned in uniformly spaced rows, at least three such dots from adjacent rows being connectable together to define a line having an oblique angle with respect to the longitudinal axis of the insulation material sheet. Nothing in the Bihi patent discloses or suggests markings that meet any of these three definitions. For the reasons set forth above in subsection 1, these marking definitions cannot be ignored, but must be given patentable weight. When given patentable weight, it is clear that no prima facie case of obviousness has been established because no prior art has been cited that discloses or suggests all of the limitations of independent claim 26. For these reasons, the rejection of claims 26, 29, and 32-35 should be withdrawn.

**6. Claims 27-28 are Not Obvious in Light of the Bihi Patent**

Claims 27 and 28 are both dependent upon independent claim 26. Claim 27 specifies that the parallel line segments are part of a polygon. Claim 28 specifies that the oblique line segments are part of a polygon. Claims 27 and 28 are not obvious in light of the Bihi patent for the additional reason that these limitations are not disclosed or suggested by the Bihi

patent. As has been discussed above, the Bihi patent does not disclose or suggest printing polygons on the insulation sheet material. The rejection of these two claims should therefore be withdrawn.

**B.      Claims 1, 2, and 8-35 are Not Obvious in Light of German Publication  
DE 3713108 A1**

Claims 1, 2, and 8-35 are not obvious in light of German Publication DE 3713108 A1 because this publication is cumulative to the Bihi patent, and all of the reasons set forth above as to why the Bihi patent does not render obvious these claims are also applicable to this publication. In particular, this German Publication discloses imprinting lines on a sheet of material that are perpendicular to the longitudinal extent of the sheet of material. The lines are printed by way of a roller that is illustrated in FIG. 3. The roller 1 includes heating bars 26 that heat marking ribs 30 so as to burn indicia onto the sheet material that passes by. The roller 1 is rotated at a speed such that there is substantially no slippage of the marking ribs on the sheet material. From the structure of the roller 1, as well as the apparatus depicted in FIGS. 1 and 2, it is clear that the indicia that are imprinted on the sheet material are straight line segments that are oriented perpendicular to the longitudinal extent of the sheet material. Thus, the indicia are precisely the same indicia that are disclosed in the Bihi patent. The German Publication is thus completely cumulative to the Bihi patent, and all of the reasons discussed above in subsection A setting forth the impropriety of rejecting claims 1, 2, and 8-35 in light of the Bihi patent are also applicable to the rejections based on the German DE 3713108 A1 reference. The rejections based on this German reference should therefore be withdrawn for the very same reasons discussed above in subsections 1-6 of subsection A.

**C.      Claims 1, 2, and 8-35 are Not Anticipated or Obvious in Light of  
European Patent EP 0 795 424 A1**

European Patent Publication EP 0 795 424 A1 is also cumulative to both the German '108 Publication and the Bihi patent. This can be seen in FIGS. 1-3 of the European Patent. The European '424 publication discloses an apparatus that applies markings to a mineral fiber material that has a plate shaped stamping block 12 with heaters 14. The stamping block 12 is moved at right angles to the moving mineral fiber material, and moves partially with the

movement of the material. The stamping block 12 is moved down against the material, travels with it temporarily, and then is lifted clear for the cycle to be repeated. From FIGS. 1 and 2, it can be clearly seen that the heaters 14 are arranged in straight lines. Thus, as they are pressed against the mineral fiber material, they burn straight line imprints into the mineral fiber material. Still further, these lines are perpendicular to the longitudinal extent of the material. Thus, the imprinted lines are oriented in precisely the same manner as that disclosed in the Bihiy and German '108 references. Because the European '424 reference is cumulative to both the Bihiy and German '108 references, the rejections of claims 1, 2, and 8-35 should be withdrawn for the very same reasons discussed above in subsection A.

In light of all of the foregoing, all of the rejections of claims 1, 2, and 8-35 should be withdrawn.

Respectfully submitted,

BIRGIT BOGE, JURGEN TRAPPMANN,  
AND WOLFGANG HOLSTEIN

By: Van Dyke, Gardner, Linn & Burkhardt, LLP



Date: July 3, 2003

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**IX. Appendix**

1. A rollable, mineral wool, insulation material sheet for insulation of roofs, said insulation material sheet having markings distributed over a length of said insulation material sheet which facilitate cutting-off of insulation material sections from said sheet by means of a separating cut, said markings being defined by at least one arrangement selected from the group consisting of:

(a) at least some of said markings being defined on said insulation material sheet with an orientation that is non-perpendicular to a longitudinal axis of said insulation material sheet; and

(b) said markings being defined by plane formations.

2. A rollable, mineral wool, insulation material sheet for insulation of roofs, said insulation material sheet having markings distributed over a length of said insulation material sheet which facilitate cutting-off of insulation material sections from said sheet by means of a separating cut, said markings being formed by crosses, at least some of said crosses being arranged one beside the other with an interval on a perpendicular to the longitudinal axis of said insulation material sheet, and said crosses being arranged with intervals over the longitudinal axis of said insulation material sheet.

8. Insulation material sheet as defined in claim 1 wherein said markings are arranged in rows, each said row oriented transversely to the longitudinal axis of said insulation material sheet, and each said row having uniform longitudinal intervals between adjacent rows.

9. Insulation material sheet as defined in claim 2 wherein said markings are arranged in rows, each said row oriented transversely to the longitudinal axis of said insulation material sheet, and each said row having uniform longitudinal intervals between adjacent rows.

10. Insulation material sheet as defined in claim 1 wherein said markings comprise a line directed in an oblique direction to the longitudinal axis of said insulation material sheet.

11. Insulation material sheet as defined in claim 2 wherein said markings comprise a line directed in an oblique direction to the longitudinal axis of said insulation material sheet.
12. Insulation material sheet as defined in claim 8 wherein said markings comprise a line directed in an oblique direction to the longitudinal axis of said insulation material sheet.
13. Insulation material sheet as defined in claim 9 wherein said markings comprise a line directed in an oblique direction to the longitudinal axis of said insulation material sheet.
14. Insulation material sheet as defined in claim 1 wherein said markings are formed by geometrical patterns selected from the group consisting of trapezoids, squares, rectangles, triangles, and parallelograms.
15. Insulation material sheet as defined in claim 2 wherein said markings are formed by geometrical patterns selected from the group consisting of trapezoids, squares, rectangles, triangles, and parallelograms.
16. Insulation material sheet as defined in claim 8 wherein said markings are formed by geometrical patterns selected from the group consisting of trapezoids, squares, rectangles, triangles, and parallelograms.
17. Insulation material sheet as defined in claim 9 wherein said markings are formed by geometrical patterns selected from the group consisting of trapezoids, squares, rectangles, triangles, and parallelograms.
18. Insulation material sheet as defined in claim 1 wherein said markings are formed by dot-shaped formations.
19. Insulation material sheet as defined in claim 2 wherein said markings are formed by dot-shaped formations.

20. Insulation material sheet as defined in claim 8 wherein said markings are formed by dot-shaped formations.
21. Insulation material sheet as defined in claim 9 wherein said markings are formed by dot-shaped formations.
22. Insulation material sheet as defined in claim 1 wherein said markings are formed by lines or geometrical patterns, said geometrical patterns being arranged in a transverse direction to the longitudinal axis with intervals, and said geometrical patterns being formed by several markings that are regularly repeated in the direction of the longitudinal axis.
23. Insulation material sheet as defined in claim 2 wherein said markings are formed by lines or geometrical patterns, said geometrical patterns being arranged in a transverse direction to the longitudinal axis with intervals, and said geometrical patterns being formed by several markings that are regularly repeated in the direction of the longitudinal axis.
24. Insulation material sheet as defined in claim 8 wherein said markings are formed by lines or geometrical patterns, said geometrical patterns being arranged in a transverse direction to the longitudinal axis with intervals, and said geometrical patterns being formed by several markings that are regularly repeated in the direction of the longitudinal axis.
25. Insulation material sheet as defined in claim 9 wherein said markings are formed by lines or geometrical patterns, said geometrical patterns being arranged in a transverse direction to the longitudinal axis with intervals, and said geometrical patterns being formed by several markings that are regularly repeated in the direction of the longitudinal axis.
26. A rollable, mineral wool, insulation material sheet for insulation of roofs, said insulation material sheet having markings distributed over a length of said insulation material sheet which provide a guide for making oblique cuts with respect to the longitudinal axis of the

insulation material sheet, said markings being arranged in a repetitive manner and being defined according to at least one definition selected from the group consisting of:

(a) each said marking being defined by at least one oblique line segment extending in an oblique direction with respect to the longitudinal axis of said insulation material sheet;

(b) each said marking being defined by at least one parallel line segment extending in a direction parallel to the longitudinal axis of the insulation material sheet, said parallel line segments being arranged in rows and defining endpoints wherein at least three endpoints from parallel line segments in adjacent rows are collinear so that they can be connected together to define a line having an oblique angle with respect to the longitudinal axis of the insulation sheet material; and

(c) each said marking being defined by a dot wherein said dots are positioned in uniformly spaced rows and at least three dots from adjacent rows can be connected to define a line having an oblique angle with respect to the longitudinal axis of the insulation material sheet.

27. The insulation material sheet of claim 26 wherein said parallel line segments are part of a polygon.

28. The insulation material sheet of claim 26 wherein said oblique line segments are part of a polygon.

29. The insulation material sheet of claim 26 further including a plurality of perpendicular line segments extending in a direction perpendicular to the longitudinal axis of the insulation material sheet, said perpendicular line segments providing a guide for making cuts in the insulation material sheet that are perpendicular to the longitudinal axis of the insulation material sheet.

30. The insulation material sheet of claim 29 wherein said parallel line segments are part of a polygon and said oblique line segments are part of a polygon.

31. The insulation material sheet of claim 30 wherein said parallel line segments are collinear with a plurality of other parallel line segments such that the collinear line segments provide a guide for making cuts in the insulation material sheet that are parallel to the longitudinal axis of the insulation material sheet.

32. The insulation material sheet of claim 26 wherein said oblique line segments are not all parallel to each other.

33. The insulation material sheet of claim 26 wherein said dots in each row are all collinear with respect to each other in a direction perpendicular to the longitudinal axis of the insulation material sheet, and each dot in a given row is collinear with another dot from every row in a direction parallel to the longitudinal axis of the insulation material sheet.

34. The insulation material sheet of claim 26 wherein said markings are defined according to a definition selected from the group consisting only of definitions (a) and (b).

35. The insulation material sheet of claim 26 wherein said markings are defined according only to definition (a).